

ADAM

WBC HT

Instruction Manual



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General Description

ADAM-rWBC HT is an analyzing medical device that counts the number of residual leukocytes in a blood component for transfusion. ADAM-rWBC HT uses fluorescent dye for cell dyeing and enables automatic cell counting. Automatic cell counting can minimize user bias and subjective interpretation that may occur when using other methods.



Figure 1. ADAM-rWBC HT System

Technology

- Mechanism

White blood cell counting for residual leukocytes can be performed manually using Nageotte chamber. Limitations of this method are (1) propensity for the staining of artifacts (2) inappropriate for the high cell counting (3) time consuming (4) subjective interpretation. Other methods are costly and user-dependent.

NanoEntek developed ADAM-rWBC HT which is based on fluorescent microscopy techniques for counting cells. ADAM-rWBC HT utilizes sensitive fluorescent dye staining, LED optics and CMOS detection to provide accurate and reliable leukocyte counting.

ADAM-rWBC HT operating procedure is as follows; Mix blood sample with lysis buffer including Propidium Iodide (r-Solution) and load the mixed sample onto a disposable plastic slide (r-Slide). Put r-Slides on Trays and insert Magazine into ADAM-rWBC HT. ADAM-rWBC HT counts stained leukocytes using sensitive CMOS camera. ADAM-rWBC HT software calculates the leukocyte number automatically to provide final result.

Technology

_ residual Leukocytes Counting

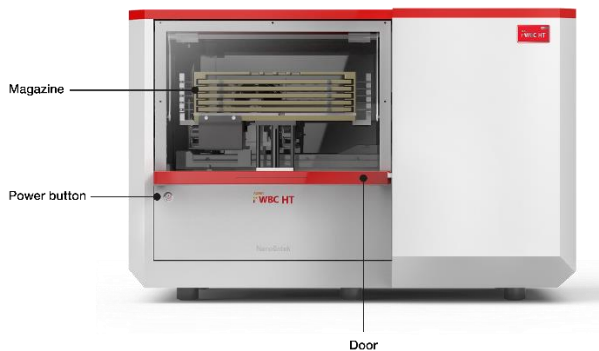
ADAM-rWBC HT sample preparation is based on staining of mammalian cell DNA using fluorescent dye, Propidium Iodide (PI) and nucleic acid dye. Since PI only stains cellular DNA when used with RNase, only white blood cells with DNA-containing nuclei are stained while platelets and RBC without nuclei remain unstained.

ADAM-rWBC HT Kit consists of 25 mL of r-Solution and 50 disposable r-Slides. For accurate counting, it is important to keep the correct sample preparation procedure.

ADAM-rWBC HT calculates the total number of leukocytes automatically and displays the result on the main software.

Front View of ADAM-rWBC HT

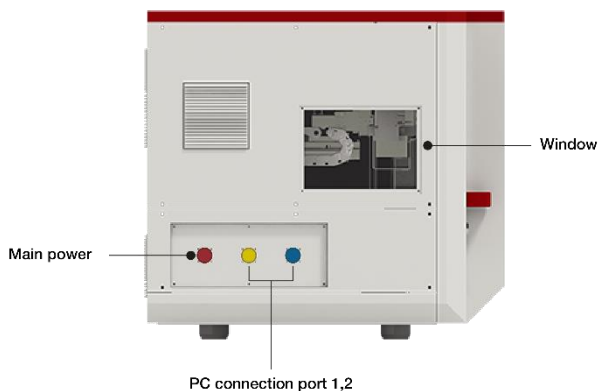
Front view showing various parts of the ADAM-rWBC HT.



Part name	Description
Magazine	Holder for tray(s) insertion/ejection
Power button	Powering on/off
Door	Instrument door

Left Side View of ADAM-rWBC HT

Left side view showing various parts of the ADAM-rWBC HT.



Part name	Description
Main power	Connection port for electrical outlet
PC connection ports	Connection ports for PC
Window	Transparent window to check the operation of the instrument

Environmental Requirements

⚠ CAUTION

At low temperature (≤ 10 °C), allow the instrument to warm up for 10 minutes at ambient temperature before use.

To ensure correct operation and stable performance, install the ADAM-rWBC HT in a proper location by complying with the followings:

- Use at room temperature.
- Do not expose the instrument to direct sunlight.
- Do not expose the instrument to direct or continuous vibration.
- Do not expose the instrument to intense magnetic or electromagnetic fields.
- Do not install the instrument in high-humidity environment.
- Installation should be free corrosive gases or other corrosive substances.
- Minimize contact with dust or airborne particles.
- Secure at least 10 cm (4 inches) of free space around the instrument for the proper airflow.
- Do not place objects on top of this instrument.
- Connect ADAM-rWBC HT power cord to wall outlet directly.

Powering On and Initial Display

1. Connect the power cord to the ADAM-rWBC HT.
2. Connect the instrument to PC with LAN and USB cable. Then, connect the barcode scanner to PC.

When the barcode scanner is well connected, it will light up.

3. Connect the PC to a PC monitor using a monitor cable. Then, connect the power cords to the PC and PC monitor.

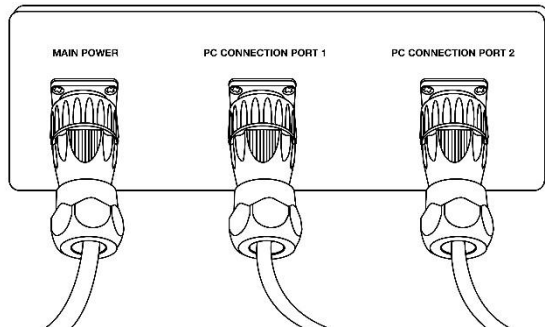


Figure 2. Connection ports of ADAM-rWBC HT

⚠ CAUTION

- ***Do not tilt the instrument too much when connecting the power cord.***
- ***Do not move the instrument after connected to the power cord.***

Powering On and Initial Display

4. Turn on the ADAM-rWBC HT.
5. Turn on the PC and run ADAM-rWBC HT main software. The screen will be displayed as below while the program is being initialized.

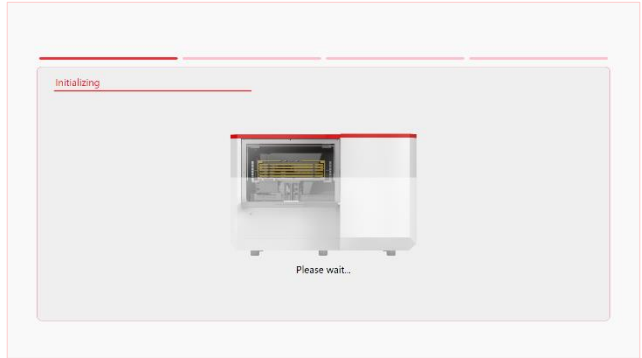


Figure 3. Initializing

⚠ CAUTION

If the following error code occurs during the program initializing process, turn off the instrument and the PC. Repeat Step 4 and 5 above. If the same error message appears repeatedly, contact your local distributor or ivdst@nanoentek.com.

Error code	Cause
0x00000C00	Failure of X-axis sensor
0x00007000	Failure of Y-axis sensor
0x00008000	Failure of Z-axis sensor
0x06000000	Failure of Locking module sensor

6. The log in page will be displayed as below.

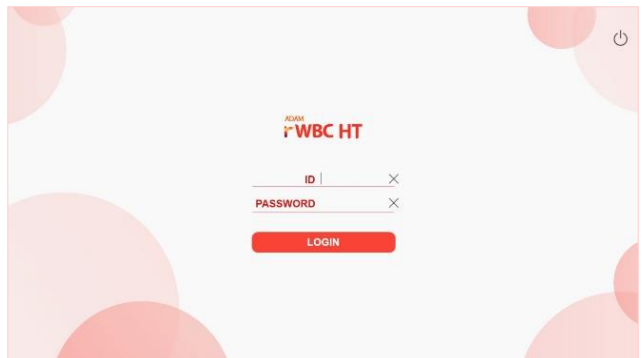
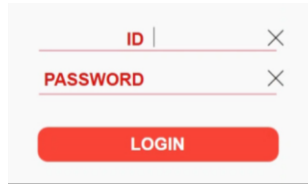


Figure 4. Login page

Log In

Enter 'user ID and password' to log in.



The login form consists of two input fields. The first field is labeled 'ID' and has a red 'X' icon to its right. The second field is labeled 'PASSWORD' and also has a red 'X' icon to its right. Below these fields is a red button with the text 'LOGIN' in white capital letters.

If the user logs in successfully, home screen will appear as below.

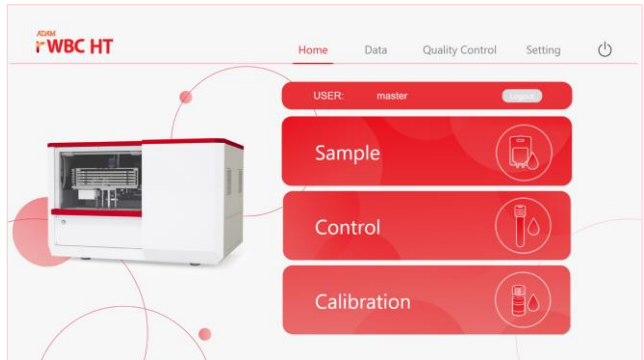


Figure 5. Home screen

User Management

1. Move to the 'Setting' menu and click 'Admin' button when you need to manage accounts (e.g. User ID addition, password change).

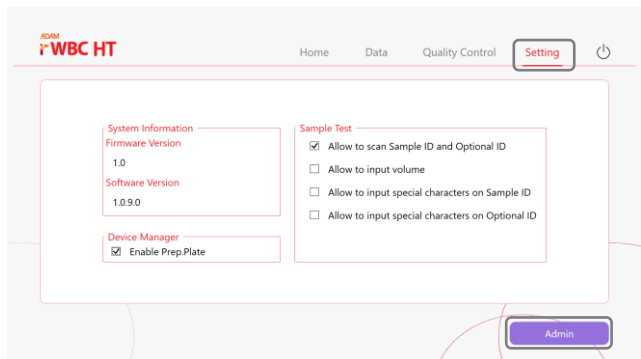


Figure 6. Setting menu

NOTE

Only master user can access the 'Admin' button and 'User Management' page.

User Management

2. To **create a new ID**, fill out blank (user name, ID, password, confirm) and click 'ADD' button.

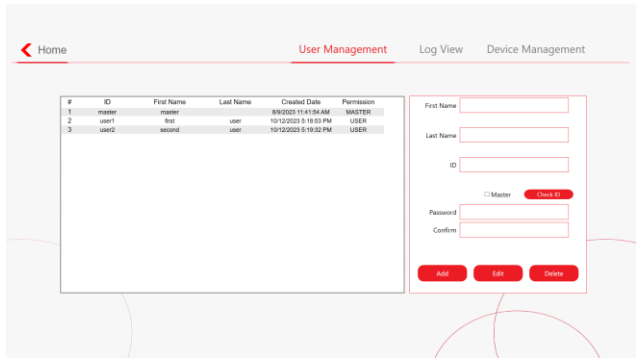


Figure 7. User management menu

Sample Test Option

1. Barcode scan setting for blood sample
Factory setting allows only one barcode scanning per sample. By selecting '**Allow to Scan Sample ID and Optional ID**', a sample can be scanned up to two times.
2. Pack volume setting
This setting allows to enter the volume of each blood pack. By selecting '**Allow to input volume**' and entering the pack volume when testing, results with adjusted pack volume will be obtained.
3. Special character setting in Sample ID
This setting allows to enter **Allow to input special characters on Sample ID**. Without applying this setting, user can only enter numbers in Sample ID.
4. Special character setting in Optional ID
This setting allows to enter **Allow to input special characters on Optional ID**. Without applying this setting, user can only enter numbers in Optional ID.

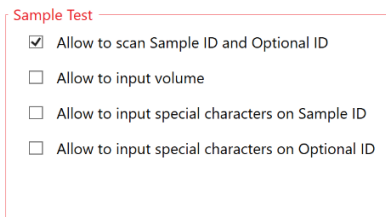
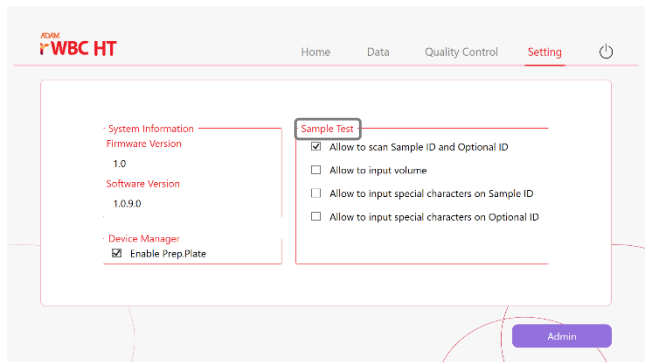


Figure 8. Sample test option in setting menu

NOTE

The range allowed for the blood pack volume is 1 mL to 1,000 mL.

Calibration

Before using the ADAM-rWBC HT, a calibration test must be performed. The calibration test is required to verify if optical and auxiliary structures of the ADAM-rWBC HT are completely ready for the clinical sample test by using the Standard Bead Solution provided in the ADAM-rWBC Kit.

The ADAM-rWBC HT must be calibrated after each start up and at least once a day of use.


1. Click **'Calibration'** button to start the calibration in the main software.



Figure 9. Calibration mode selection

2. Let the **Standard Bead Solution** come to room temperature for up to **10 minutes** before use.
3. **Scan the Standard Bead Solution** and the **r-Slide** using the barcode scanner to obtain their information.
When the Standard Bead Solution is scanned, its LOT number, range, and expiration date will be automatically displayed.

Calibration Test

	Standard bead
Barcode	172202041025B17050-01690.87~122.95
LOT:	25B17050-016
Range:	90.87 ~ 122.95 /uL
EXP Date:	2022.02.04


	r-Slide
Barcode	3W16240-2077
* Please place r-Slide on slot #1	

Figure 10. Scanned information for calibration test

Calibration

4. Place the scanned empty **r-Slide** in the Tray.

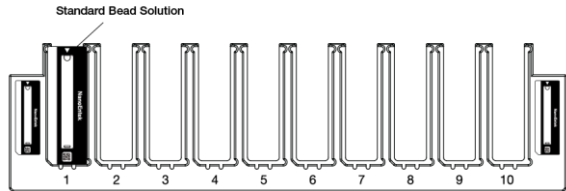


Figure 11. Position of the r-Slide in the tray for calibration

5. Mix the bead until the substance is distributed evenly.
6. Load **100 μL** of the beads onto the r-Slide.
7. Insert the Tray into the Magazine of the ADAM-rWBC HT.
8. Close the door and click '**Next**' button followed by '**Run**' button for calibration.

CAUTION

Please use unexpired Standard Beads Solution. If the expired solution is scanned, a pop-up window will appear.

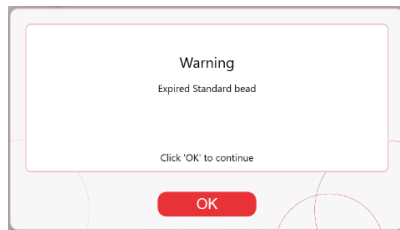


Figure 12. Warning message for expired Standard Beads

NOTE

The instrument is ready to use only if the calibration test result is within the range as indicated on the individual label on the Standard Bead Solution provided.

Control

The Package Insert includes the instructions for external quality control (**low and high level of RBC; low and high level of PLT**) test for initial operation and after long-term non-use at 'Control' mode. The quality control material can be **run together in a single Tray**.

1. Click '**Control**' button to start the quality control in the main software.

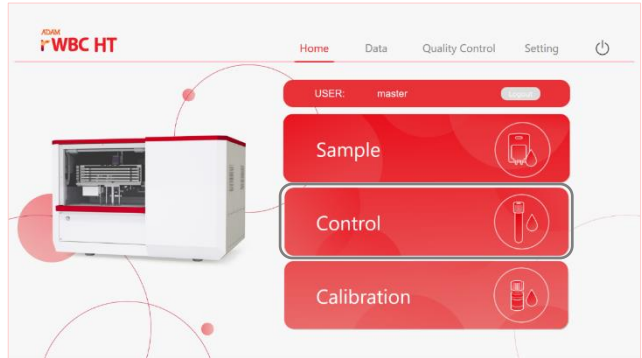



Figure 13. Control mode selection

2. Let the **quality control materials** to room temperature for up to **15 minutes** before use.
3. Scan the **r-Solution** using the barcode scanner to obtain their information. When the r-Solution is scanned, its LOT number and expiration date will be automatically displayed.
4. Sequentially scan the barcodes of each pair of **control materials** and **r-Slide** by holding in front of the reading window of the scanner. Scan the control material tube and then the empty r-Slide.

Control Test






	r-Solution	
Barcode:	<input type="text" value="17220301101RS17120"/>	×
	LOT: 1RS17120	
	EXP Date: 2022-03-01	
	Control	
Barcode:	<input type="text" value="LKP0521L"/>	×
	Type: PLT	
	Control: LOW	
	r-Slide	
Barcode:	<input type="text" value="5W17120-0528"/>	×

Figure 14. Scanned information for control test

Control

5. Place the scanned empty **r-Slide** in the Tray.

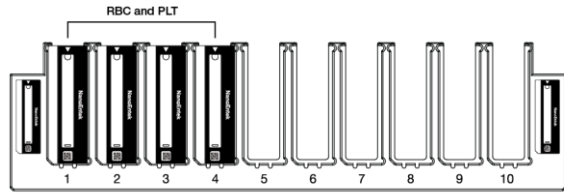


Figure 15. Position of the r-Slides in the Tray for quality control material

6. Gently invert the control materials until mixed thoroughly.
7. Insert **400 μL of r-Solution** and **100 μL of quality control materials** into a clean test tube.

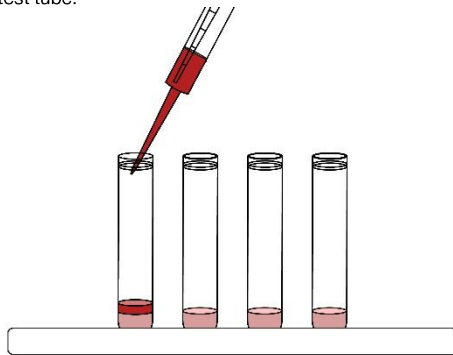


Figure 16. Sample mixing ratio

8. Mix the tube well.
9. Load **100 μL** of the mixed sample onto the r-Slide.
10. Insert the Tray into the Magazine of the ADAM-rWBC HT.
11. Close the door and click **'Next'** button followed by **'Run'** button for measurement.

CAUTION

Please use unexpired r-Solution. If the expired solution is scanned, a pop-up window will appear.

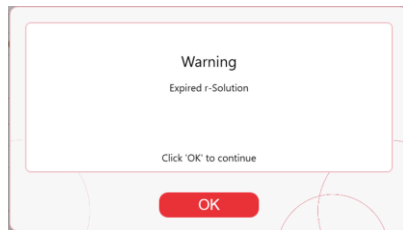


Figure 17. Warning message for expired r-Solution

Control

NOTE

The instrument is ready to use only if the quality control material test result is within the range as indicated on the data sheet provided with quality control material.

1. Modify

This mode is used when **modifying the scanned information**. Select the incorrectly entered information and click '**Modify**' button to open the following window.

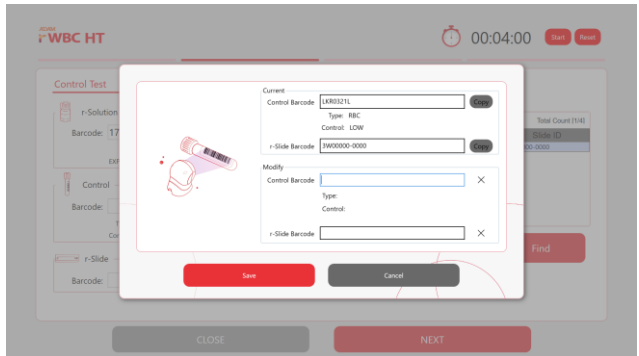


Figure 18. Modify window

After modification, click '**Save**' button to apply.

2. Find

This mode is used when **replacing the r-Slide**. Enter the barcode of the r-Slide to be replaced and click '**Find**' button to highlight the item in the list.

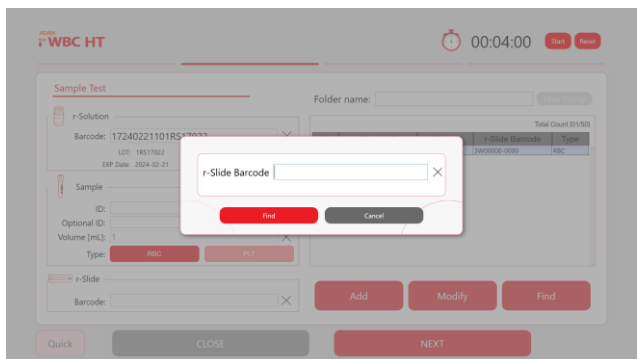


Figure 19. Find window

Sample Preparation & Testing

1. Click 'Sample' button.



Figure 20. Sample mode selection

2. Enter the 'Folder Name', if necessary.
3. Select **sample type**. For each test, select only one sample type(**RBC or PLT**).



4. Scan the **r-Solution** using the barcode scanner to obtain their information. When the r-Solution is scanned, its LOT number and expiration date will be automatically displayed.
5. Sequentially scan the barcodes of **each pair of blood sample and r-Slide** by holding in front of the reading window of the scanner. Scan the blood sample first, then the empty r-Slide.

The screenshot shows the 'Sample Test' form. It is titled 'Sample Test' and has a red underline. The form is divided into three sections: 'r-Solution', 'Sample', and 'r-Slide'. Each section has a corresponding icon on the left. The 'r-Solution' section shows a barcode of '17240221101RS17022', a LOT number of '1RS17022', and an EXP Date of '2024-02-21'. The 'Sample' section shows an ID of 'W053318000113', an Optional ID field, a Volume of '200' mL, and a 'Type' selection with 'RBC' and 'PLT' buttons. The 'r-Slide' section shows a barcode of '5W17120-0520'. There is also a small illustration of a barcode scanner on the left side of the form.

Figure 21. Scanned information for sample test

※ If you need to modify the scanned information, please refer to Page 19.

6. Enter 'Optional ID' and 'Volume', if necessary.

NOTE

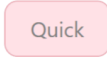
- The same slide cannot be re-scanned for any other sample.
- It is recommended to use the barcode scanner provided with the

Sample Preparation & Testing

ADAM-rWBC HT. If the scanner is unavailable, the sample ID and r-Slide barcode can be entered manually.

NOTE

- If necessary, click 'Quick' button to skip Step 2 to 6 for a quick count.



7. Place the Tray(s) to be used on a flat table.

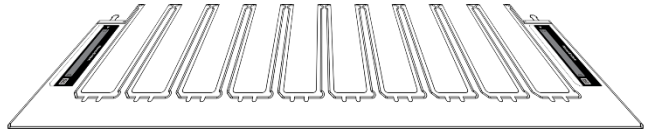


Figure 22. An example of the empty Tray

8. Place the scanned empty r-Slide in the Tray. The r-Slide(s) should be inserted in the same direction as the example below.

※Up to 50 samples (in the 5 Trays) can be performed at once.

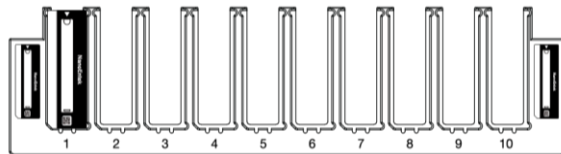


Figure 23. The location of the scanned empty r-Slide in the Tray

9. Repeat step from 4 to 6 until all of the r-Slides for testing are well positioned.

WARNING

- The barcode must be located at the bottom of the Tray.
- The r-Slide(s) should be inserted in the same direction as the example attached in the Tray.

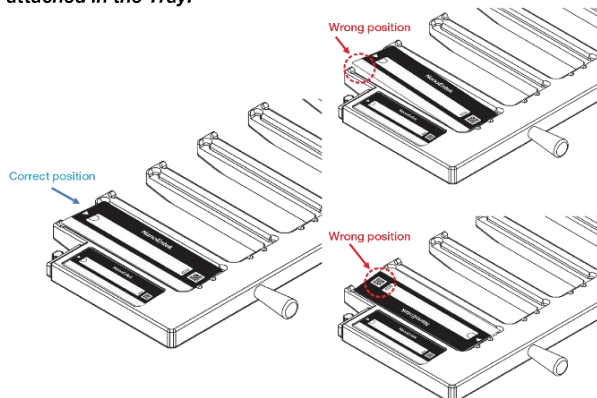


Figure 24. The position of the r-Slide in the Tray

Sample Preparation & Testing

1. Modify

This mode is used when modifying the scanned information. Select the incorrectly entered information and click 'Modify' button to open the following window.

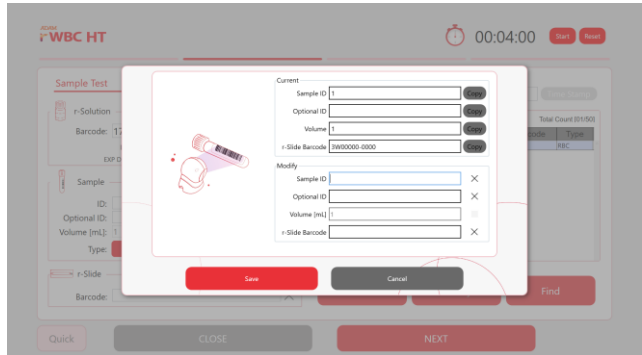


Figure 25. Modify window

After modification, click 'Save' button to apply.

2. Find

This mode is used when replacing the r-Slide. Enter the barcode of the r-Slide to be replaced and click 'Find' button to highlight the item in the list.

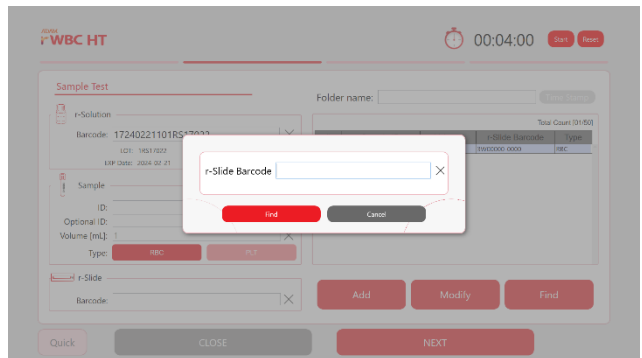


Figure 26. Find window

Sample Preparation & Testing

NOTE

For stained sample stability, there should be no delay between any of the following steps: sample processing, r-Slide loading, Tray insertion into the Magazine and starting of the counting process.

1. Add **400 μL** of **r-Solution** to each test tube using a pipette.

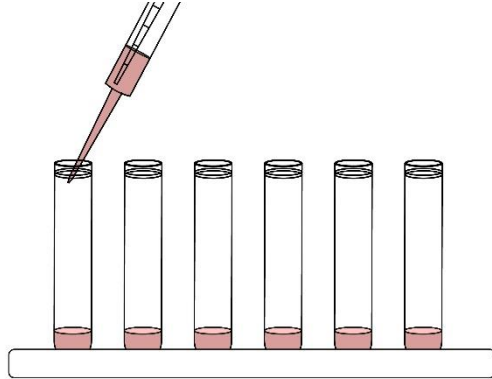


Figure 27. Adding the r-Solution into test tubes

2. Carefully add **100 μL** of **well-mixed RBC or platelet sample** into the clean test tubes. (Thus, the mixture should contain **400 μL** of **r-Solution** and **100 μL** of **sample**.)

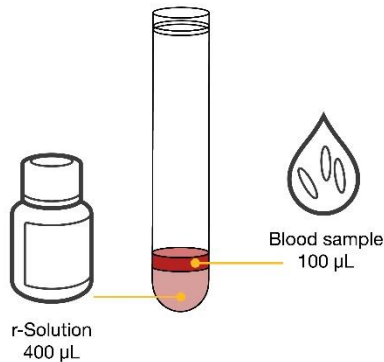


Figure 28. Sample mixing ratio

WARNING

[Mixing ratio error]

Please mix the sample and reagent with the correct ratio. Incorrect mixing ratios may lead to an inaccurate result. The ADAM-rWBC HT does not provide the mixing ratio.

Sample Preparation & Testing

3. Load **100 μ L** of sample/reagent mixture onto the r-Slide.
※ Reverse pipetting is recommended.

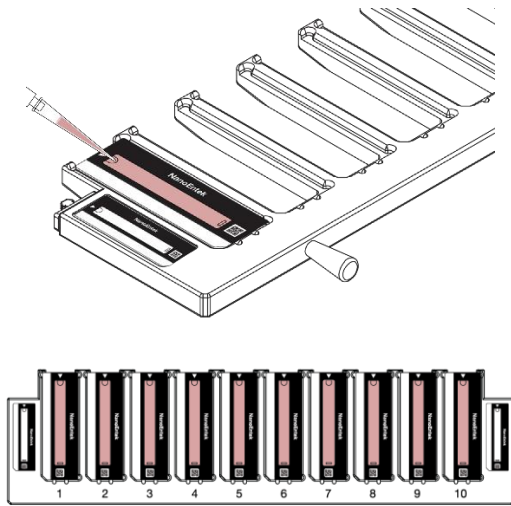


Figure 29. Loading sample mixture onto the r-Slide

⚠ WARNING

Avoid bubbles which may negatively affect the result.

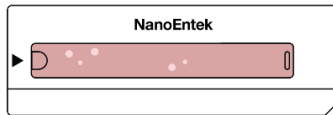


Figure 30. Example of loaded sample with bubbles

⚠ WARNING

[Sample loading error]

Make sure to load the correct volume (100 μ L) of the sample onto the r-Slide. The ADAM-rWBC HT will not detect low or high sample volume.

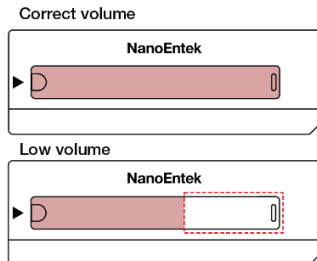


Figure 31. Example of correct volume and low volume of sample loaded

Sample Running

1. Insert the **Tray(s)** in the corresponding section of the ADAM-rWBC HT Magazine. Up to **5 Trays (50 samples)** can be performed at a time.

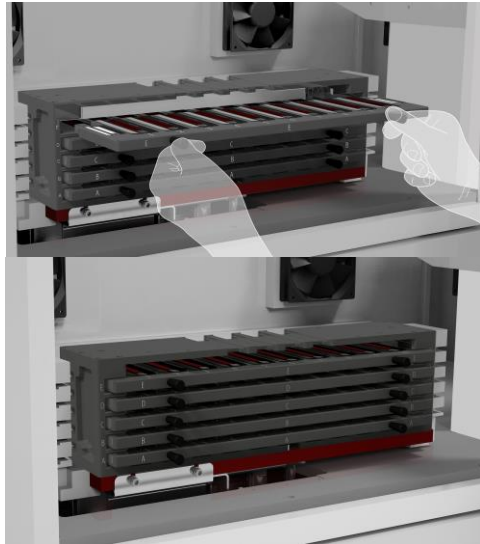


Figure 32. Magazine with all five Trays inserted.

NOTE

To inject/eject, push the Tray(s) until 'click' sound is heard.

2. Click **'Next'** button.
3. After inserting the Tray(s), make sure that the software displays the correct number of the Tray(s) and the placement in blue.

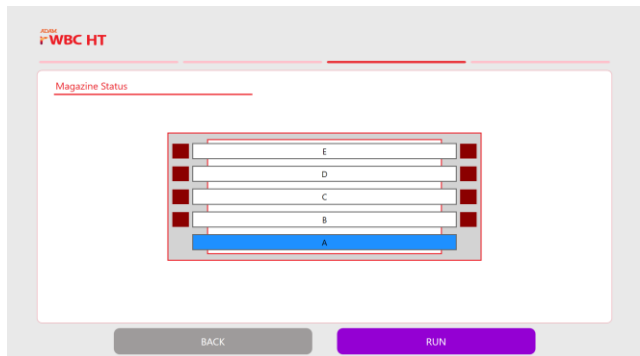


Figure 33. Tray A inserted in the Magazine

Sample Running

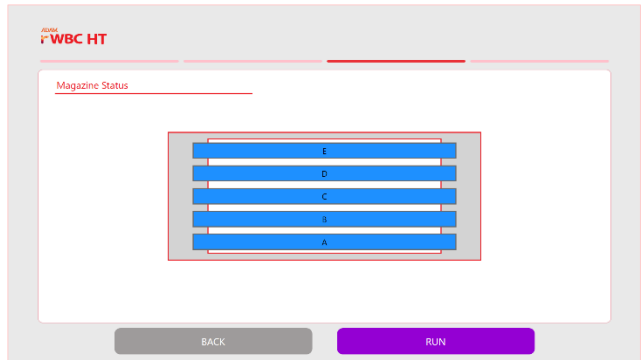


Figure 34. Display of all 5 Trays inserted into the Magazine

4. Close the **door** and click '**Run**' button to start.

Results

During measurements, counting progress is shown as below.

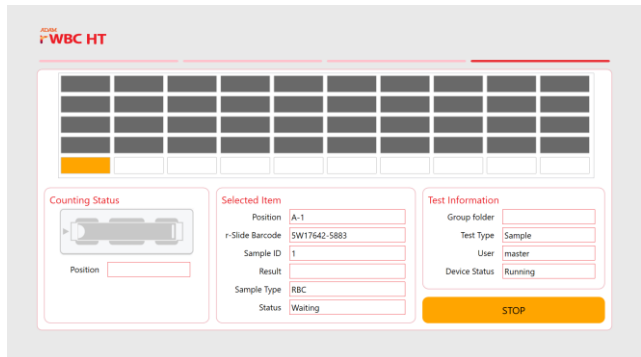


Figure 35. Counting progress status

The **calculated** number of leukocytes **will be displayed automatically**.

Results

⚠ WARNING
Error message – [Missing r-Slide barcode]

If two or more r-Slide barcodes are not scanned properly the following window will be displayed. Enter the missing r-Slide information manually and click 'Save'.



Figure 36. r-Slide barcode information window

⚠ WARNING
Error message - [Bad Sample]



Bad sample

Figure 37. In case of bad sample after test

Bad sample error may occur due to one of the following cases:

1. One or more frames have 100 pixels.
2. The number of error frame is more than 5. Error frame is the frame having more than 160 cells detected.
3. Pipetting error or dust inflow during sample preparation

📄 NOTE

In case this error message appears in the results, discard the error sample, prepare a new stained sample and retest. If the error occurs repeatedly, please obtain a new whole sample and start again.

Data

NOTE

Entire folder or each test result saved in a folder can be exported or deleted in 'Data' menu.

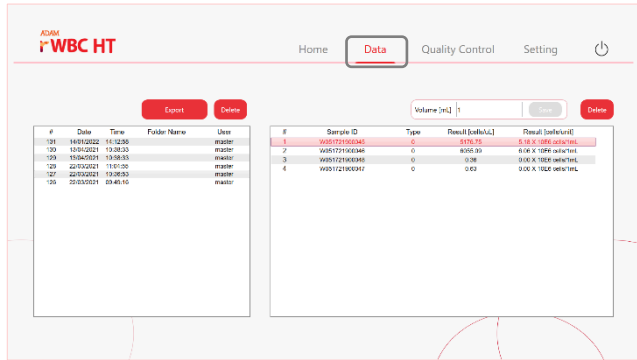


Figure 38. Data menu

Quality Control

Move to 'Quality Control' menu to check calibration and control results.

1. Control

Click 'Control' button. Each result for the quality control can be checked individually.

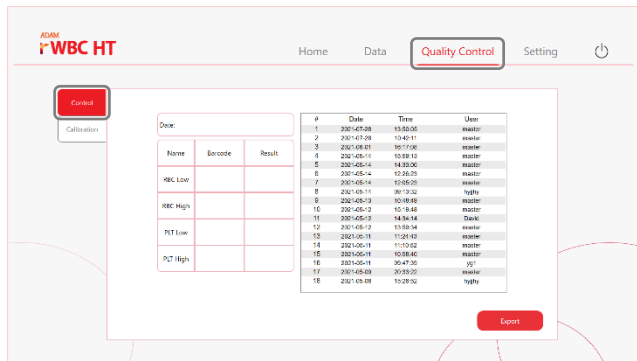


Figure 39. Results for control materials

Quality Control

2. Calibration

Click 'Calibration' button. Results for the Standard Bead Solution can be checked. Results will be displayed as PASS or FAIL based on the range of each Standard Bead Solution.

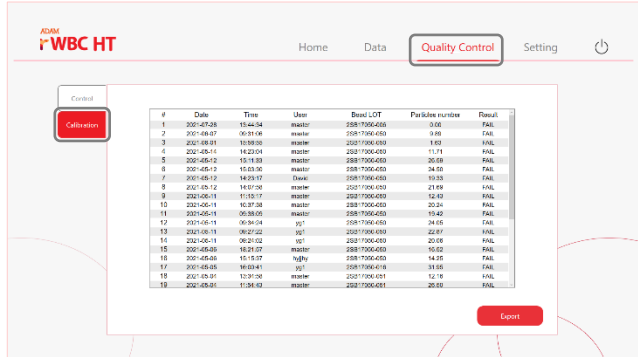


Figure 40. Results for calibration bead

Admin

1. User Management

Move to 'User Management' menu to create or modify User ID. Please refer to Page 9 for details.

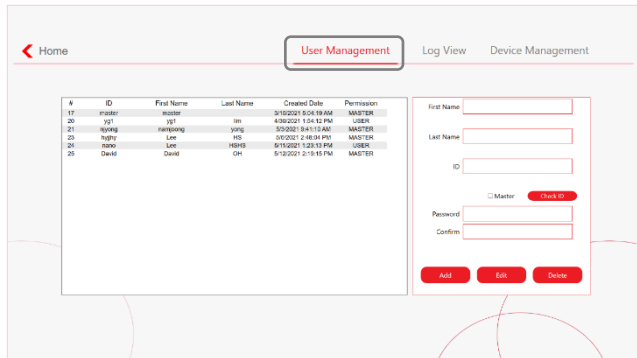


Figure 41. User management menu

NOTE

Only master user can access 'Admin' page.

Admin

2. Log View

Move to **'Log View'** menu to check all users' activities. Use Search function to check the activities for specific ID.

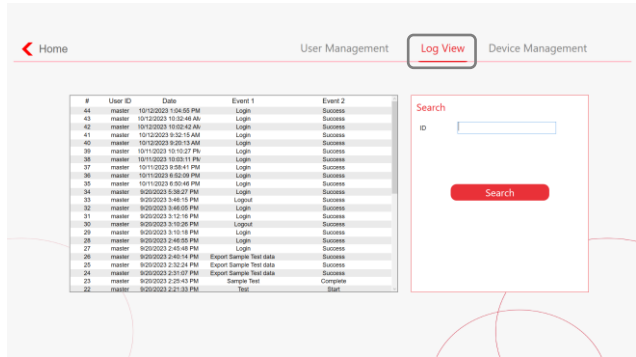


Figure 42. Log view menu

3. Device Management

Move to **'Device Management'** menu to check the version of instrument and software.

3-1. System: Version information is available in 'System' section.

3-2. Data:

- To delete all sample test data, click **'Test data clear'**.
- To delete all calibration and control data, click **'QC data clear'**.
- To remove all data including user's information, click **'Factory Reset'**.

3-3. MS Access:

- If you wish to store data in MS Access format, turn on the **'Enable MS Access'** option.
- Set the storage location for the Access file in the 'Path' field.

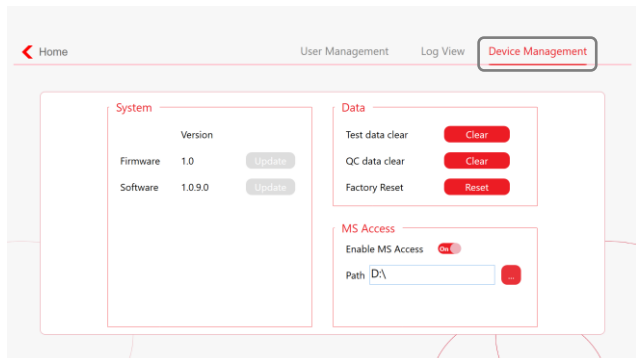


Figure 43. Device management menu

Powering Off

1. Click the 'Power' button to close the main software.

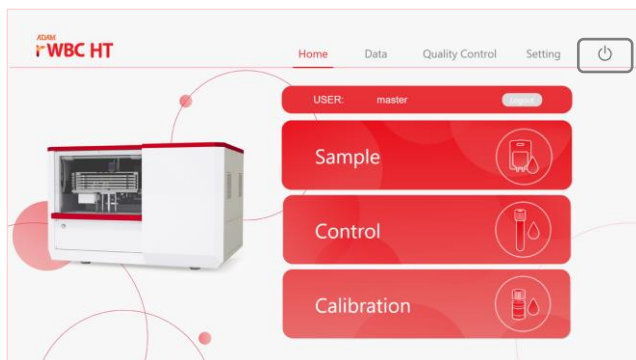


Figure 44. Powering off

2. Turn off the PC.
3. Press the power button on the ADAM-rWBC HT instrument.

Maintenance and Cleaning

ADAM-rWBC HT does not need regular maintenance because it has no consumable materials to be replaced.

Please clean the exposed surface of ADAM-rWBC HT frequently or before testing using a soft cloth and isopropyl alcohol or deionized water.

Trouble Shooting

Problem	Description	Solution
ADAM-rWBC HT does not turn on	No power from outlet	Check the power source.
	Bad power cord	Replace or repurchase the cord.
Result error message	[Bad sample!]	Refer to Page 24

Technical Specifications

ADAM-rWBC HT		
Measuring range	1 ~ 100 cells / μ L	
Analysis time	< 1hour / 50 test	
Voltage	100 - 240V~	
Current Consumption	5.0A	
Objective lens	4 X	
LED	4W Green LED	
Camera	CMOS camera	
Filter	Excitation filter, Dichroic filter, Emission filter	
Weight	120 kg	
Size (W x D x H)	1020 mm (W) x 730 mm (D) x 670 mm (H)	
PC & Monitor		
※Specifications for PC and monitor provided can be changed.		
CPU	Intel® Core™ i5-9500	
RAM	16 GB DDR4	
OS	Windows 10 Pro	
Hard disk	SSD 256 GB / HDD 2TB	
Display	24 inch 1920 x 1080(full-HD)	
Operation		
Temperature	0°C ≤ Temperature ≤ 40°C	
Humidity	10% ≤ Humidity ≤ 90%	
Altitude	Altitude ≤ 2,000 m	
Transportation & storage environment condition		
Temperature	- 30°C ≤ Temperature ≤ 60°C	
Humidity	10% ≤ Humidity ≤ 90%	
Accessories		
Trays	5 ea	
Barcode scanner (Model# Cone-3000) <small>The specifications of the barcode scanner provided can be changed to equal or greater version.</small>	1 ea	
	Barcode type	1D/2D
	Light source	5600K White LED
	Image (pixels)	1MP (1280 x 800)

Technical Specifications

Technical Specifications



ADAM-rWBC Kit (Cat.# ADHK-050)	
r-Slide	
Loading sample vol.	100 µL / r-Slide
Measuring vol.	about 57 µL / r-Slide
Solutions	
r-Solution	25 mL, Propidium Iodide (PI)
Standard Bead Solution	7 mL
Storage temperature	
r-Slides	0-30°C (32-86°F)
r-Solution	2-8°C (36-46°F)
Standard Bead Solution	2-8°C (36-46°F)
Expiration Date	
r-Slides	1 year before open 6 months after open
r-Solution	1 year before open 6 months after open
Standard Bead Solution	1 year before open 6 months after open

Product List

Cat. No.	Product	Contents	Quantity
ADAM-rWBC HT	ADAM-rWBC HT	Main instrument	1
		PC	1
		Monitor	1
		Barcode scanner	1
		Instruction manual	1
ADHK-050	ADAM-rWBC Kit (50 tests)	r-Slide 50 pcs	1
		r-Solution 25 mL	1
		Standard Bead Solution 7 mL	1

Safety Precautions

Review and follow the safety instruction below:

- Always ensure that the power supply input voltage matches the voltage available at your location.
- To avoid the danger of electric shock, install the medical device per the environmental specifications described in "Technical Specifications". If the medical device, the adaptor, or power inlet is exposed to water or other material, disconnect the power cord and contact an authorized service person.
- Do not touch the main plug or power cord with wet hands.
- This medical device is air-cooled so its surfaces become hot during operation. When installing and using, secure a free space of at least 10 cm (4 inches) around the device.
- Do not install the medical device on a slant or a place prone to vibrations. It will cause medical device malfunction and damage.
- Never insert any objects (especially metallic substances) into the air vents of the medical device as this could result in electrical shock, personal injury, and instrument damage.
- Always set the main switch on the power supply unit to OFF before connecting the power cord to the wall outlet.
- To avoid a potential shock hazard, always connect the grounding terminal of the medical device and that of the wall outlet properly. The power cord should be connected to a grounded, 3-conductor power outlet.
- Position the medical device so that there is sufficient length for the cables and their respective connection.
- Before moving the device, set the main switch to "O" (OFF) and unplug the power cord.
- If the medical device is broken or dropped, disconnect the power cord and contact an authorized service person. Do not disassemble the device.
- Use authorized accessories only.
- Use this medical device only as specified in this manual and as specified in any documentation associated with its components. Use of the medical device in an unspecified manner may result in damage to the medical device or injury to the user.

Consignes de sécurité

Examinez et suivez les consignes de ci-dessous :








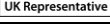






- N'installez pas l'instrument dans un endroit humide comme une serre ou un incubateur pour éviter un risque de choc électrique. Si de l'eau ou tout autre matériau pénètre dans l'instrument, l'adaptateur, ou l'entrée d'alimentation, débranchez le cordon d'alimentation et contactez un technicien de service. Pour l'environnement d'exploitation, reportez-vous aux spécifications du produit.
- Ne touchez pas la fiche ou le cordon d'alimentation principale avec les mains mouillées.
- Assurez-vous toujours que la tension d'entrée d'alimentation correspond à la tension disponible dans votre endroit.
- Cet instrument est refroidi à l'air de sorte que ses surfaces peuvent devenir chaudes pendant le fonctionnement.
- Lors de l'installation de l'instrument, laissez un espace de plus de 10 cm (4 pouces) autour de cet instrument et ne placez aucun objet entre l'appareil et le mur.
- N'installez pas l'instrument sur une pente ou un endroit soumis à des vibrations, ce qui induit le risque de dysfonctionnement ou d'endommagement de l'instrument.
- N'insérez jamais aucun objet dans les orifices d'aération de l'instrument, car cela pourrait entraîner un choc électrique, des blessures chez les utilisateurs et des dommages d'équipement.
- Branchez le cordon d'alimentation fermement dans la prise murale et l'adaptateur secteur aussi.
- Pour éviter un risque potentiel de commotion électrique, assurez-vous que le cordon d'alimentation est correctement mis à la terre.
- Assurez-vous de positionner l'instrument de telle sorte qu'il soit facile de débrancher l'instrument.
- Éteignez l'instrument avant de débrancher le cordon d'alimentation et / ou de déplacer l'instrument. Si l'instrument est cassé ou qu'il soit tombé, débranchez le cordon d'alimentation et contactez un technicien de service. Ne démontez pas l'instrument et la garantie sera annulée en cas de démontage.
- Utilisez uniquement les accessoires autorisés (l'adaptateur, le cordon d'alimentation, et le lecteur USB).

WARNING

Le produit de classe A est conçu pour l'utilisation dans un environnement industriel. Dans la documentation de l'utilisateur, la déclaration doit être incluse pour attirer l'attention sur le fait qu'il peut y avoir des difficultés potentielles pour assurer la compatibilité électromagnétique dans d'autres environnements, en raison des perturbations rayonnées et conduites par l'électricité.

Explanation of Safety Symbols

The following symbols are found on the medical device and this document. Always use the instrument safely.

Symbol	Meaning
	Caution & Warning
	Protective earth (Ground)
	Power On/Off
	The moving parts symbol indicates areas of the medical device in which moving parts can cause injuries. Do not operate the medical device with the door open.
	This instrument has been tested and found to comply with the limits for a Class A digital medical device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the instrument is operated in a commercial environment. This instrument generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this instrument in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
	This medical device and consumables conforms to the EC Declaration of Conformity.
	Authorized representative in the European community
	Authorized representative in United Kingdom
	Authorized representative in Switzerland
	Authorized representative in Brazil
	USB Connection
	The LAN Port symbol identifies the communication between the medical device and the only external computer.
	<i>In vitro</i> diagnostic medical device
	This product conforms to UL 61010-1, CAN/CSA C22.2 No.61010-1 "Safety Requirements for Electrical Instrument for Measurement, Control, and Laboratory Use, Part I: General Requirements." This instrument bearing the TÜV symbol are certified by TÜV Product Services to be in conformance with the applicable safety standard for the US and Canada.

Warnings



1. After using this medical device, please turn off the main power. If not, it may cause malfunction or lifetime reduction of medical device.

2. When turning off the medical device, make sure to lock the device by pressing 'Lock' button. If not, it may cause mechanical problem(s) or error message will appear during the device booting.

Item	Warning
Cover	Do not remove cover or disassemble case. There are no adjustable components inside the medical device. If malfunction occurs, please contact an authorized service person.
Manual	Do not attempt to service the medical device. This manual is only available in English. Failure to heed warnings may result in injury to service provider or operator.
Sample handling	Wear personal protective instrument during sampling and testing. Sample may contain infectious or bio-hazardous agents. Use of capped tubes and lint free wipes. Used lint free wipes shall be discarded.
Waste	After using the r-Slide, dispose appropriately as bio-hazards waste. Do not reuse the r-Slides.

Technical Support

Visit our Website at www.nanoentek.com for:



- Technical resources, including manuals, FAQs, etc.
- Technical support contact information
- Additional product information and special offers

For more information or technical assistance, please call or email.

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ADAM
 WBC HT

NESMU-ARH-002E(V.0.3)



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